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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 10/077,307  | 02/15/2002  | Derek Raybould       | H0002477                     | 3397             |
| 7590 08/11/2004   |             |                      |                              |                  |
| DIPINTO & SHIMOKAJI P.C.<br>1301 DOVE STREET,<br>SUITE 480<br>NEWPORT BEACH, CA 92660 |             |                      | EXAMINER<br>MAI, NGOCLAN THI |                  |
|   |             |                      | ART UNIT<br>1742             | PAPER NUMBER     |

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

H2

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/077,307             | RAYBOULD ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Ngoclan T. Mai         | 1742                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,25-27,29-39 and 41-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6,25-27,29-39,41 and 42 is/are allowed.
- 6) ☒ Claim(s) 43-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, see page 17, last line to page 22, line 17, filed 5/21/04, with respect to claims 1-2, 4-5, 7, 26, 39 and 43 under 35 U.S.C. 102(b) as being anticipated by Petzoldt have been fully considered and are persuasive. The rejection of these claims has been withdrawn.
2. Applicant's arguments, see page 23, line 19 to page 24, line 7, filed 5/21/04 , with respect to claims 3, 16, 19, 27, 41-42, 44-46 and 48 under 35 U.S.C. 103(a) as unpatentable over Petzoldt have been fully considered and are persuasive. The rejection of these claims has been withdrawn.
3. Applicant's arguments, see page 24, line 8-11, filed 5/21/04, with respect to claim 6 under 35 U.S.C. 103(a) as unpatentable over Petzoldt in view of Marder have been fully considered and are persuasive. The rejection of claim 6 has been withdrawn.
4. Applicant's arguments, see page 22, line 18 to page 23, line 18 filed 5/21/04, with respect to claims 1 (amended) - 5, 25 (amended) - 27, 29, 39 (amended), and 41-42 as being unpatentable over WO 98/54531 have been fully considered and are persuasive. The rejection of these claims has been withdrawn.

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5. However applicant's arguments with respect to claims 43-50 under 35 U.S.C.

103(a) as being unpatentable over WO98/54531 have been fully considered but they are not persuasive.

6. Applicants have argued that the claimed process of making which uses thinner Al coatings and lower heat treatment temperatures would result in superior properties, as in the present invention and that the claims 43-50 are product-by-process claims based on the process different from prior art result in a superior product which was not obtained by the process described in WO98/54531.

The examiner disagrees with the applicants in that claim 43 which depend on claim 36 as can be seen by the process result in a product with titanium-based substrate with titanium aluminide layer on the substrate and an alumina on the outer surface. This product is disclosed by the reference on page 8.

More particularly oxidation of the titanium or braze clad titanium is prevented by a coating 30 that can be applied to protect or transform the titanium surface. In this example conversion coating in a gaseous phase can be applied to and deposited on an assembled and brazed heat exchanger assembly to ensure coverage of all of the exposed parts of the complex heat exchanger configuration. This coated assembly is then heat treated in a vacuum furnace (not shown) to activate the conversion coating and transform the titanium into an oxidation resistant titanium aluminide with an alumina surface, which also prevents oxidation. In this example the gaseously deposited conversion coating can be aluminum in thickness of 1-40 microns. Upon heat treatment and activation, the aluminum interacts with the titanium to form oxidation resistant titanium aluminide. The resultant coating provides oxidation resistance both at 1300 and 1400°F as the mechanical properties of Al coated Ti21S after 200 hour exposure to temperature show.

While the product taught by the reference is produced by difference process, there is no obvious distinction between the claimed product and the product of the prior art.

Where the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and

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the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQM 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977)." see MPEP 21 12.01. [emphasis added by examiner]

7. Claims 44-50 are the same as claim 43 with the exceptions of the thickness of alumina and titanium aluminide recited and coating having uniform thickness. These claims are obvious over the teaching of WO98/54531 which discloses the thickness of titanium aluminide in the range of 1 to 40 micron, see page 9, first full paragraph and thickness of alumina layer in the range of less than 5 microns, see page 13 last paragraph to page 14, first two lines. WO98/54531 discloses that the coating formed by the disclosed method produce uniform coating in page 3, 4<sup>th</sup> full paragraph.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., superior properties) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

8. For the reasons above claims 43-50 are still rejected under 35 U.S.C. 103(a) as being unpatentable over International Application WO 98/54531 A1 (WO '531, cited on

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IDS filed February 15, 2002). The rejection regarding these claims was made in previous office action, paragraph 7, and is incorporated herein by reference.

9. claims 1-6, 25-27, 29-39, 41-42 are allowable.

### ***Conclusion***


10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 7:30-4:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ngoan T. Mai  
Primary Examiner  
Art Unit 1742

n.m.